Volunteer Firemen

MARCH

1944

NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
60 Batterymarch Street Boston 10, Massachusetts

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- ECONOMY & AVAILABLE SUPPLY
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A prize is hereby offered for the best "still" photographs showing the sequences of extinguishing fires occurring in the United States and Canada, with any of our FOGNOZLS, old style or new. We reserve the right to use any or all photographs for advertising purposes and any sent in are sent to us with this understanding. The only compensation is the prize to the best pictures. The prize? Why a FOGNOZL, of course.

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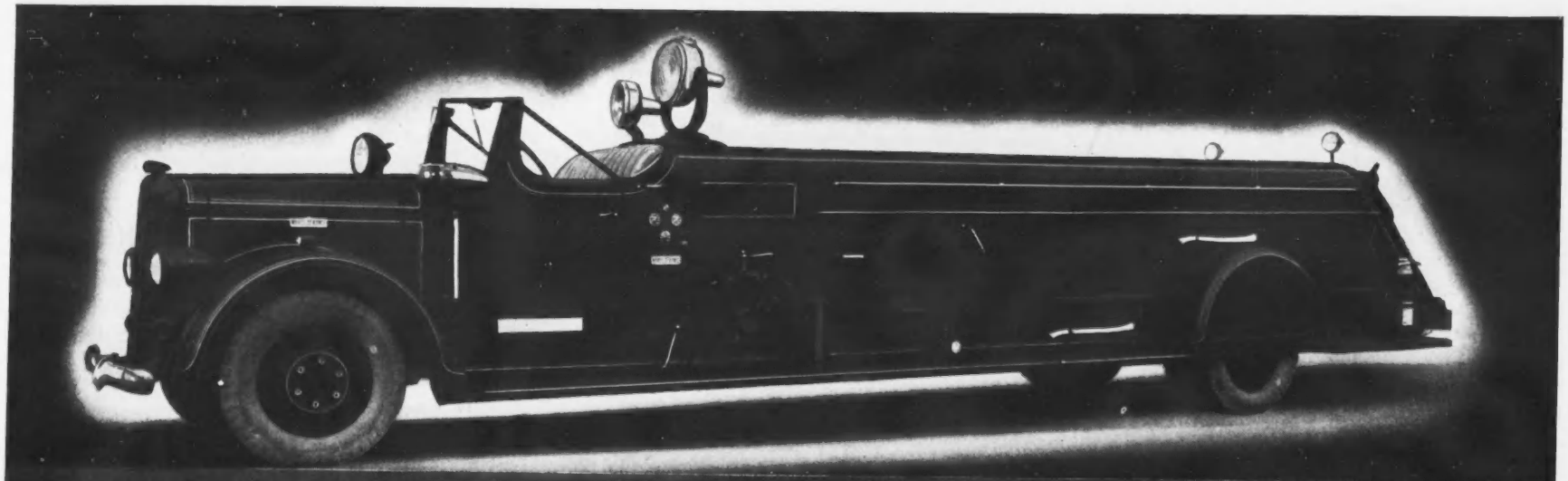

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Quick Facts

About Model 56 Q D Enclosed 500 Gallon Quadruple Ladder Truck Illustrated:

- LENGTH: 31 ft., 3 in. (no ladder overhang).
- WEIGHT (empty): 14,900 lbs.
- WHEELBASE: 242⅝ in.
- HORSEPOWER: 150.
- PUMP: 500 G.P.M. two-stage centrifugal.
- BOOSTER TANK: 150 gallons.
- HOSE CAPACITY: 250 ft., ¾ in. hose; or 150 ft. of 1 in. Reel in rear.
- LADDERS: Ten — up to 50 ft., 3 section.

BECAUSE of wartime restrictions, the production of certain types of fire equipment, including the model shown, cannot be resumed until after Victory. Meanwhile, we're turning out Heavy Wrecker Units, like the one shown at the left, to help speed that day. We suggest that you discuss your department's needs with our engineers now, so we may fill them at the earliest possible moment.

WARD LaFRANCE
TRUCK DIVISION
ELMIRA, NEW YORK

GREAT AMERICAN INDUSTRIES

Volunteer Firemen

THE fire shown on the front cover this month occurred in a bowling alley at Tulsa, Oklahoma. A report on this fire prepared by the Oklahoma Inspection Bureau is presented on page 12 of this issue. It brings out some lessons that will be of interest to any fireman who may have to fight this type of blaze. A subsequent bulletin prepared by A. R. Smith, Chief Engineer, Oklahoma Inspection Bureau and sent to fire chiefs in that state contains the following additional information on the control of bowling alley fire hazards:

"Fires in bowling alleys throughout the nation are increasing, indicating that new hazards have been introduced into these occupancies. In January, 1943, a bowling alley fire in Chicago is reported to have claimed the lives of seven persons, injuring 100 (35 seriously), with property damage estimated at $150,000. The same month, a loss of $150,000 was suffered in a bowling alley fire at Richmond, Virginia.

"More recently (January, 1944), at Toledo, Ohio, a half-million dollar bowling alley fire is said to have taken one life, injuring 16 others, and in Tulsa, Oklahoma, on January 12th, the Wagles Bowling Alley was destroyed by fire with loss estimated at $70,000. . . . You will note that materials being employed today in finishing pins and alleys present serious life and fire hazards and we would urge that all bowling alley occupancies, both public and private, in your city be inspected with a view of reducing these hazards.

"Pin finishing should be conducted preferably in an incombustible room or enclosure well ventilated to the outside air by fans or other means. Highly flammable liquids should be limited to as small amount as the business will permit and this kept in approved safety cans when not in use. Excess quantities should be stored elsewhere. No heating devices other than steam should be permitted in these locations and electrical installations should conform to Code requirements for explosive locations. Smoking should be prohibited in and near finishing rooms. (The Toledo fire is said to have been started by a pin boy lighting a cigarette.)

"Sanding machines and lathes should be equipped with a blower system discharging into an enclosed metal container, preferably located outside of the building. Residue from this process should be removed at least daily and disposed of safely. It would be well to provide standard automatic sprinkler protection in bowling alley occupancies, or at least in the shop work sections.

"Fumes from fires involving materials such as are being used in finishing pins and alleys are considered very toxic and also explosions in the nature of back drafts can be expected. Extreme caution should be taken when entering bowling alleys involved by fire and entry should never be made without the protection of proper type gas masks."

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The views expressed by the authors of signed articles do not necessarily reflect the views of the N.F.P.A. or the editors of VOLUNTEER FIREMEN.

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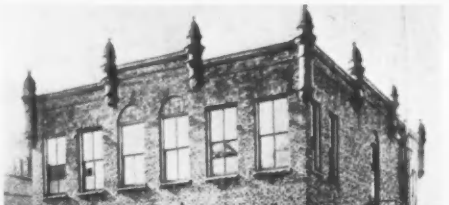
MARCH is the month in which we have always printed a story about the grass fire hazard and methods of controlling and fighting such fires. At this writing, the problem this year promises to be worse than ever before. Large portions of the United States have been suffering from very serious deficiency in precipitation. This condition has existed for some time and in a number of states the amount of snowfall during the winter has not been enough to add an adequate amount of protective moisture. Unless there is a liberal amount of rain or snowfall in the near future, the spring fire season promises to be very serious.

Many volunteer fire departments are rightly apprehensive about their ability to cope with a major series of brush, woods, forest, and prairie fires. It is well known that all departments are shorthanded and those men who are available for fighting fires are usually engaged in essential work and do not like to leave for handling large numbers of these outside fires.

Many fire departments report that one of the outcroppings of the present juvenile problem is a tremendous amount of fire setting. Some of these fires involve sheds and abandoned buildings but a large number consist of grass fire calls. This is a problem that requires the help of the entire community. It is a well established fact that a large percentage of the major conflagrations that have occurred in the United States and Canada since the turn of the century have been the result of forest and brush fires.

It should be remembered that when the woods and grasslands are dry, building sidings and wooden roofs are likewise dry and ready for quick ignition. Explain your local problem to the public through your local newspapers and get everyone in the community to help you fight the plague of brush fires this spring.

The publishers of VOLUNTEER FIREMEN *are making every effort to conserve paper in compliance with the limitation orders of the War Production Board.*



One-time school building housed the laboratory about 1900.

Main testing station. Buildings are models of fire resistive construction, house 17 departmental laboratories.

Underwriters' Laboratories, Inc.

FIFTY YEARS OF SERVICE

1944 is the year in which Underwriters' Laboratories celebrates the completion of its first fifty years of service. The Laboratories has come a long way in its ability to serve its clients, its sponsors and the public since the start half a century ago in a small room "over the horses" of Fire Patrol Station No. 1 on Monroe Street, Chicago, where the staff consisted of one engineer, an assistant and a clerk. Its laboratory equipment then was a bench, a table, a few chairs, and $350 worth of electrical equipment.

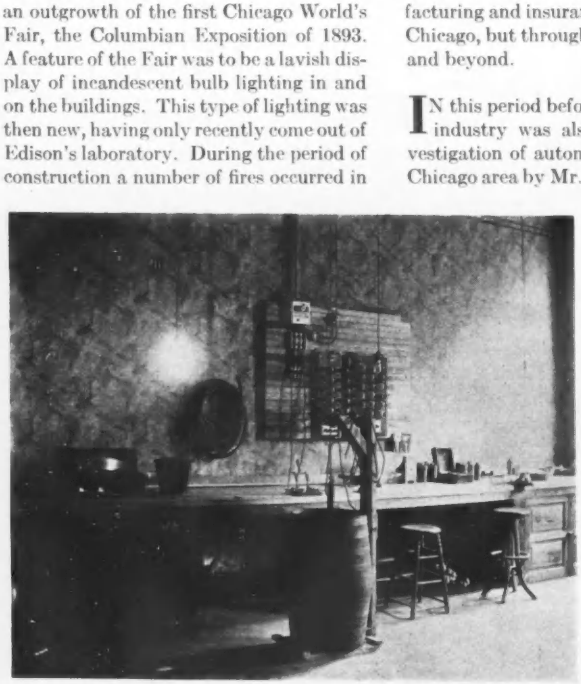
Like many other developments which have grown to importance in the last five decades, Underwriters' Laboratories was an outgrowth of the first Chicago World's Fair, the Columbian Exposition of 1893. A feature of the Fair was to be a lavish display of incandescent bulb lighting in and on the buildings. This type of lighting was then new, having only recently come out of Edison's laboratory. During the period of construction a number of fires occurred in the fairground buildings. Some of these were caused by the "new-fangled" lighting. Apprehensive that this new lighting method might prove hazardous, insurance interests in Boston sent an engineer to Chicago to investigate the situation. That engineer was William Henry Merrill, founder-president of Underwriters' Laboratories, later a president and honorary life member of N.F.P.A.

Riding behind the horses at each call to the fairgrounds, Merrill's job was to determine what piece of electrical equipment, if any, had caused the fire, and why. This work and the reports which were written attracted considerable attention in manufacturing and insurance circles, not only in Chicago, but throughout the Central West and beyond.

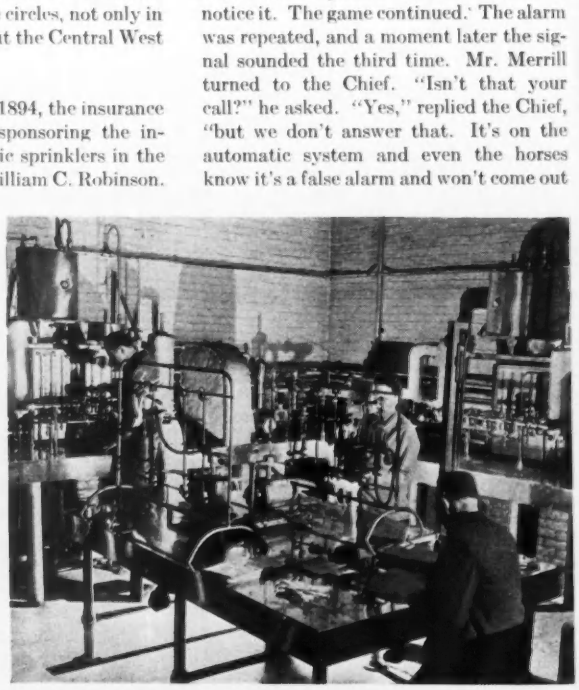
IN this period before 1894, the insurance industry was also sponsoring the investigation of automatic sprinklers in the Chicago area by Mr. William C. Robinson. The two men soon joined forces to consolidate their laboratory equipment and expand their activities, Robinson shortly thereafter becoming the first chief engineer and vice-president of the new organization.

About this time the United States began to see the birth of many new industries. The new enterprise became closely associated with this industrial growth, finding opportunities for service in many new fields.

The tale is told how one day Mr. Merrill was sitting in at a poker game with the boys of Fire Patrol Station No. 1 when the signal for the station came in on the automatic alarm system. No one seemed to notice it. The game continued. The alarm was repeated, and a moment later the signal sounded the third time. Mr. Merrill turned to the Chief. "Isn't that your call?" he asked. "Yes," replied the Chief, "but we don't answer that. It's on the automatic system and even the horses know it's a false alarm and won't come out



Early electrical laboratory. Total cost of equipment, $350.



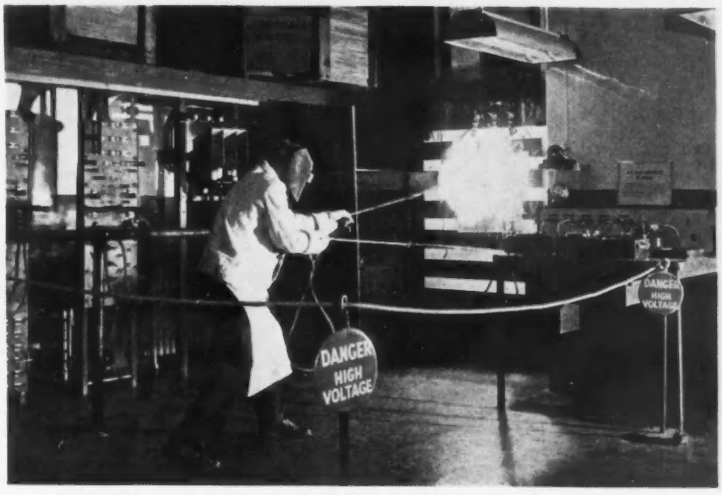
Laboratory where explosive vapor-air mixtures are made for use in testing explosion-proof motors and other electrical equipment.

of the stalls." This incident is credited with having started the engineers on an investigation of the faults and failures then existing in automatic fire alarm systems.

With the accidental discovery in North Carolina in 1892 of a method of making acetylene gas commercially, its use for lighting soon became known and before long tinsmiths and druggists in many towns collaborated to produce acetylene lighting equipment for homes, stores, hotels, and offices. Widespread use of these crude generators, made with little knowledge of the hazardous nature of the gas employed, resulted in explosions and fires and losses of lives and property. The testing of acetylene generators and lighting equipment became an important activity for the small laboratory which was to become Underwriters' Laboratories, Inc.

While this work was going on in Chicago similar investigations were being conducted by a few individuals in other cities. The results of these separate investigations often did not agree. Embarrassment and some confusion resulted. To rectify this situation the idea was suggested to the National Board of Fire Underwriters that the Chicago laboratory be made the official testing station of the capital stock fire insurance business. In 1894 this was done and Underwriters' Laboratories, Inc., was thus founded.

Outgrowing its original and supplementary locations the organization now moved to a brick building at 67 East 21st Street, Chicago, which had been a school and gymnasium. This was the first complete building to be occupied by the Laboratories and it seemed amply spacious, but with the influx of new devices for test, it, too, in a few years became overcrowded. Construction of an Underwriters' Laboratories' building seemed to be the solution.



One corner of electrical laboratory showing explosion of switch during overload test.

"THE City Unburnable," as the present main testing station on Ohio Street in Chicago has been rather loosely termed, was begun in 1904 on land acquired on a 99-year lease, and later purchased. The first unit, only a small building 50 by 100 feet, three stories and a basement on the front half and one story in the rear, was occupied in 1905. Five or more additions, since the original building was erected, give the testing station a total of approximately 130,000 square feet of floor area. The buildings in this group were designed to be and are today among the best examples of fire-resistive construction in the country.

In the fifty years which have elapsed since its origin, the objectives of Underwriters' Laboratories or its reasons for being have remained the same — to reduce the dangers to life and property.

Because of the increasing volume of testing required by eastern manufacturers, a New York City testing station was opened in 1912. The work at this station is primarily in electrical, fire alarm, and burglary prevention fields. To serve the western part of the United States a third testing station was opened in 1923 in San Francisco.

For extra hazardous work involving high explosives, toxic gases, and other dangerous products, a fourth testing station is maintained out in the country about thirty-five miles from Chicago.

Three hundred seventy-five thousand products have been approved by Underwriters' Laboratories to date and are listed in its booklets of tested and inspected items. As 50% fail the first time they are tested, many more than 375,000 products have been investigated. The 5,000 manufactures of approved devices, materials, and systems produce in a normal year, in their more than 5,500 factories, half a billion of these safeguarded articles.

Random perusal of the lists of inspected products would show them to include such diverse items as baby incubators and static eliminators, electric shavers and acetylene torches, matches and fire extinguishers, paints and cleaning liquids, fertilizers and fumigants, refrigerators and oil burners, window cleaners' belts and fire windows, fuses and flashlights, ladders and elevator interlocks, lightning rods and earthquake gas shut-off valves, phone booths and safes, motor-driven tooth brushes and neon signs, Christmas-tree lights and gasoline filling station pumps, hair-waving machines and glass block walls, electrical wire and fog nozzles, automobiles and vacuum cleaners, roofing and tear gas, locks and explosion-proof motors, burglar alarm systems and electrical toys, lighting fixtures and fire hose, and a host of others.

Two things, aside from the variety of products investigated, make Underwriters' Laboratories a unique organization. The first is its inspection service. A corps of technically trained men carries out the inspection service, operating from 185 centers of production in the United States, Canada, London, England, Honolulu and Hilo, Hawaii, and making, in recent years, upwards of 85,000 annual visits at factories.

All of the products which are investigated and pass the test at one of the testing stations are periodically inspected at the factories where they are made. Frequency of inspection depends on the production schedule and the type of device, but in each case continued compliance with the requirements of the safety standards is attained. Inspections are made as long as the product remains on the Laboratories' lists of tested and inspected products. Four such lists are issued annually covering Fire Protection; Gas, Oil and Miscellaneous equipment; Electrical; and a single book combining Accident Hazard, Automotive, and Burglary Protection equipment.

These investigations involve the examination of the raw materials of which the article is made, inspection of partially completed products on the production line, and tests of representative samples of the finished product selected at random. "Underwriters' Laboratories, Inc., Inspected" labels are issued by inspectors for use on products passing this factory investigation. Most of these labels are serially numbered.

The second thing which makes Underwriters' Laboratories a rather unique organization is the fact that it is not a profit-making company. The work of compiling safety standards, testing, inspecting at factories, labeling, conducting research, and publishing the results of these activities is carried on as a service to the public. "For Service, Not Profit," Underwriters' Laboratories' motto, is more than a slogan, it is an actuality. The enthusiastic support of its capital stock insurance sponsors, of its manufacturer-clients, and of the public have made this nonprofit mode of operation possible. Since 1917 Underwriters' Laboratories has been entirely self-supporting. The cost of operation is borne by individual manufacturers who make use of its facilities.

The 1944 firemen's training season began with the Sixteenth Annual Fire Department Instructors Conference at Memphis, January 11–14

FIREMEN'S TRAINING REPORT

The Importance of Training Gains New Recognition in Wartime

THE importance of training has gained a new appreciation in wartime. Reports from the battle fronts make it very clear that only the properly trained men live. Firemen are quick to take the hint that proper training can likewise protect them against accidents and possible fatal injuries in their many battles against fire. Likewise almost every fire department is faced with the task of doing the job with fewer men than formerly. It is not unusual for one or two men to have to operate a hose stream or perform some other fire-fighting evolution that would in normal times require the efforts of an entire company. Fire losses are on the increase. In many cases apparatus and equipment is depreciating. It has become obvious that only by more intelligent advance planning and training can fire departments be confident of their ability to meet any reasonable emergency.

In the following columns are figures on firemen's training activities for 1943 as reported by the firemen's training officials in most of the states, and in one Canadian province.

Figures for all states are not available, but it seems obvious that nearly 100,000 firemen received training under state-wide firemen's training programs last year. While, due to wartime conditions and travel restrictions, this is somewhat less than the 1942 total, almost every state reports a marked increase of interest in training by the firemen.

ANNUAL FIRE SCHOOLS—1943

	Years Held	Date–1943	Departments Represented	Men Completing Units of Training
Alabama	8	June 1–5	35	73
Florida	13	Oct. 18–22	31*	69
			90†	169
Georgia	9	May 5–7	65	517
Illinois	19	June 8–11	153	275
Indiana	10	Aug. 17–19	–	–
Iowa	19	June 21–25	–	251
Kansas	15	Sept. 20–22	45	280
Kentucky	6	Aug. 24–27	41	289
Louisiana	14	May 24–27	43	74
Maryland	Chiefs' Conference	Sept. 5–6	40	72
Michigan	15	July 13–16	56	166
Minnesota	16	May 17–19	100	416
Montana	4	Oct. 7–9	11	49
Nebraska	6	Apr. 21–23	14	81
New Jersey, Bergen Co.	–	Feb. 8–Mar. 29	8	200
North Carolina	30	May 25–27	90	351
Oklahoma	11	Aug. 2–14	19	25
Oregon	Have 4 year-round colleges			
Pennsylvania	5	Aug. 16–21	282	489
Texas	14	May 24–28	243	394
Washington	13	Sept. 5–6	98	395
West Virginia	13	July 26–29	50	295
Ontario	5	Nov. 17–20	30	97
Total	23		1,380	4,859

* Fire Department.
† Military, etc.

WORK OF FIELD INSTRUCTORS

(Additional to Short Courses)

	No. Instructors	No. Departments Visited	No. Men Reached	Average Hours Instruction
Alabama	1	–	–	–
Arkansas	1	28	614	15½
Colorado	2*	–	2,000	2
Delaware	8*	9	265	–
Illinois	2	153	2,920	–
Indiana	1	–	–	–
Iowa	2	–	333	–
Kentucky	2	40	749	20
Louisiana	5	5	54	4
Maine	7*	–	120	–
Maryland	3	–	–	–
Massachusetts	3	29	327	–
Michigan	8*	10	181	30
Mississippi	3	39	540	3 days
Missouri	1	53	270	8–15
Nebraska	1	59	1,302	18
New Jersey, Bergen Co.	2	9	850	–
New Mexico	1	11	125	10
New York	14	650	36,094	2–30
Ohio	3	44	809	40
Oklahoma	1	9	103	30
Oregon	1	6	173	22
Pennsylvania	89*	221	2,359	54 (basic) 30 (advanced)
Texas	1	–	–	–
Virginia	3	44	1,100	30
Washington	16*	300	4,413	4–8
West Virginia	19*	22	285	68
Wisconsin	4	–	–	–
Wyoming	2*	15	374	30
Totals	206	1,756	56,360	Av. 23

* Including part-time or volunteer state instructors.

Instructor Training Conferences - 1943

	No. Conferences	No. Men Certified
Alabama	2	15
Delaware	1	10
Florida	1	65
Georgia	4	85
Indiana	5	–
Iowa	18	137
Kansas	2	50
Kentucky	1	40
Louisiana	5	54
Maryland	11	201
Massachusetts	2	28
Michigan	1	24
Mississippi	3	–
Missouri	5	–
Nebraska	1	81
New York	11	464
Oklahoma	2	17
Pennsylvania	1	41
Texas	1	30
Washington	1	15
West Virginia	2	25
Wisconsin	3	–
Ontario	1	75
Totals	71	1,323

ARKANSAS. Carl S. Smalley, of the Arkansas Fire Prevention Bureau, reports that regional fire school attendance has fallen off due to gasoline rationing and change in personnel. "Further cuts in value of gasoline coupons will force us to hold departmental schools rather than regional schools."

ARIZONA. Edwin C. Gracey, State Supervisor, Trade and Industrial Education, reports that while no training program was carried out during 1943 up to December 1st, "a great number of requests have been received from local fire departments for various types of training, and we plan to inaugurate a program as soon as we are able to obtain a qualified instructor."

CALIFORNIA. Because the entire fire-training staff of the State Department of Education went into the Federal service the training program was discontinued for the 1942–43 fiscal year. Chief Thomas S. Ward, Special Supervisor and Instructor of Fire Training, who had been loaned to the U. S. Office of Civilian Defense, has returned to firemen's training work.

COLORADO. W. A. Tiemann, State Director in charge of the firemen's training program reports that approximately 2,000 men received an average of two hours training each, during 1943. "During 1943 practically all available firemanship instructor time was utilized in giving war emergency instruction to regular, volunteer, and auxiliaries. We are at the present time setting up a definite firemanship training program which will provide instruction in some thirty centers throughout the State." One full-time and one part-time instructor will give this firemanship instruction under supervision of the State Board for Vocational Education.

CONNECTICUT. R. W. Howes, Acting Supervisor, Trade and Industrial Education, reports that the annual fire college was not held in 1943 because of travel difficulties and manpower shortages in the fire departments. However, the executive committee of the Connecticut Fire Department Drillmasters' Association has under consideration possible approaches to the firemen's training problem and it is hoped that a definite program will result in 1944. Plans for the year include: 1. The regional firemen's training schools will be continued wherever groups of 10 or 15 can meet conveniently at some central point. 2. In cases where the establishment of a regional school is difficult, the chief of a department may elect to have a drillmaster from the staff employed by the State Department of Education come to his department and provide training. Thus instead of training a local drillmaster at a regional school, a drillmaster already trained would come periodically to work with that department. 3. Consideration has been given to holding the annual Fire College in the winter or early spring instead of in June as has been the custom. 4. Consideration has been given to the possibility of enlisting a new group of drillmasters to increase membership in the Drillmasters' Association and provide the men needed to carry out the program mentioned in item 2. Dr. A. M. McCullough, Director, Bureau of Public Service Training, has been designated by the Commissioner of Education to work with the fire service in the development of firemen training activities in the state.

DELAWARE. Nine of the 44 fire companies in the state received training under the state program. Eight instructors reached 265 firemen in these departments. At the State Volunteer Firemen's Association it was decided to push for a training program in every fire company. In some companies classes are to be held for high school boys who are substituting for firemen in military service or who have moved to war production areas. The state curriculum is being revised and reprinted. New teaching outlines have been issued in 1943.

FLORIDA. The Thirteenth Annual Florida State Fire College was held in Miami, October 18th-22nd, inclusive, according to a report by Chief J. F. MacMillan, Co-ordinator of the Fire College. There were 321 registrants, which is the largest attendance this school has enjoyed. Of this number, 308 were students enrolled in the six-unit courses, each of which ran for the full five days. These courses included: 1. Forcible entry, small tools and appliances; 2. Ladder and rescue practices; 3. Apparatus, hose, fire-stream practices; 4. Salvage, overhaul and ventilation practices; 5. Officers conferences; 6. Fire department instructors training. There was also a short course in Bomb Reconnaissance. Of the total attendance 238 certificates were awarded. One of the outstanding features of the school was that an invitation was extended to those connected with the fire service of the armed forces of the Fourth Service Command and the Sixth and Seventh Naval Districts. Sixty-five men completed the fire department instructors' teacher-training course.

GEORGIA. Mr. Jed B. Yingling, State Supervisor, Trade and Industrial Education, reports that 783 men received instruction under the state-wide firemen's training program in 1943. This total included 517 men completing one or more units of training at the State Fire College at Atlanta, 216 men attending three zone schools, and 85 men attending four leadership and teacher training classes. Plans for the future include improvements in the fire college and more leadership training.

IDAHO. No classes for the instruction of firemen were held in the state according to the Idaho Surveying and Rating Bureau. Likewise, no Idaho firemen were reported in the figures for vocational public service fireman-training classes reported for the last fiscal year by the U. S. Department of Education.

ILLINOIS. State Fire Marshal John H. Craig reports that heavy demands have been made upon his office for instructors for the training of fire brigades due to the turnover in personnel and the organization of many new industrial fire brigades. Under the Illinois rural fire prevention program 2,758 rural school district fire wardens have been trained. In addition to the regular fire department instruction program, schools are being conducted for civilian fire guards. Instruction is also being given in the care and use of OCD pumping equipment. Special emphasis is to be placed upon the training of fire brigades in industrial plants.

INDIANA. The tenth annual fire school was held August 17th-19th. In addition ten regional fire schools and 5 fire department instructors' conferences were held. Mr. Robert Hamm has replaced Mr. Emmett Cox as state fire instructor. Mr. Cox is now a fire service instructor for the Fire Prevention Department of the Western Actuarial Bureau.

IOWA. State Fire Instructor F. F. Hemphill, reports that 137 instructors were certified in eighteen teacher-training classes, having a total enrollment of 609 men. Attendance at the state fire school was 251 men. The number of firemen reported trained by local instructors was 333, or a total for the year of 1,193 men. In addition some thirty towns completed training programs but failed to report the number of men trained.

KANSAS. E. J. Stewart, of the Fire School Committee, reports an attendance of 280 men at the Fifteenth Annual Fire School held September 20th-22nd, at the No. 2 fire station in Wichita. Forty-five departments were represented. Firemen's training for 1943 also included two instructors' conferences attended by 50 men and special sessions in fire protection for 35 men representing 21 industrial plants. In addition 18 hours of training was given to 88 men from two ordnance plants.

KENTUCKY. Captain V. A. Beam, Teacher-Co-ordinator for the Kentucky firemen's training program reports that 1,038 men received training in 1943. An instructors' conference was held at which 30 men were certified as instructors. Arrangements are being made to have these men conduct weekly classes in departments near their home communities. Special subjects will also be taught in vocational schools. Plans are under consideration to have continuous fire schools in cities having drill towers. These schools will be available to firemen in nearby small communities who would spend 10 days or longer with the larger departments attending school and responding to fire calls at night.

Regional or District Short Courses - '43

(One Day to Two Weeks Training)

	No. Schools	Departments Represented	Men Completing Units of Training
Arkansas	7	23	279
Georgia	3	12	216
Illinois	65	153	2,920
Indiana	10	–	–
Louisiana	3	5	139
Maine	4	40	43
Michigan	3	32	120
Minnesota	10	266	1,613
Nebraska	13	102	654
New York	67	295	28,594
North Carolina	6	–	–
Ohio	5	5	269
Oregon	6	6	173
Pennsylvania	2	–	353
Utah	3	–	–
Washington	15	150	2,105
West Virginia	20	22	285
Wisconsin	3	–	–
Ontario	2	45	208
Totals	247	1,154	37,971

LOUISIANA. Chief Robert Bogan, of Baton Rouge, Secretary of the State Fire School, reports that 1,735 men received training in 1943. This figure included 74 men from 43 departments in attendance at the state fire college May 24th-27th, and men reached by field instructors and regional fire schools. From September, 1942, until May 14, 1943, the fire school at Baton Rouge trained 1,468 U. S. Coast Guardsmen in classes of approximately 50 men each.

MAINE. Mr. Austin Alden, Director of Vocational Training for War Production Workers, reports that the 1943 firemen's training program was very well received and was of considerable value according to reports from fire chiefs. Some 2,000 men in 325 fire departments received general training during the year. Four regional fire schools were held with 43 representatives from 40 departments completing training. In addition, 7 field instructors gave training to some 120 men.

MARYLAND. Chief James Just, Fire Service Extension, University of Maryland, reports figures for the 1942–43 class year: 516 men from 31 departments were enrolled in 19 training classes for the 75-hour basic training course and 89 men from 7 departments were enrolled in 6 classes which took the 69-hour advanced training course. Eleven 30-hour instructor-training classes were held with an attendance of 201 men. In addition, at the request of the Safety and Security Division of Army Ordnance, the basic course was given to 417 men at ten ordnance plants in the states of Maryland, New Jersey, and Virginia. On September 7–9, 1942, a trail job analysis conference was held at Maryland University with about fifteen chiefs in attendance. This proved to be a worthwhile venture for future consideration. September 5–6, 1943, 72 chief officers from 40 fire departments attended an officers' conference held in Baltimore.

MASSACHUSETTS. Mr. M. Noreross Stratton, Director, State Division of Vocational Education reports that because of the emergency and overtime work in war plants and a curtailment in the State training staff, the firemen's training activities have necessarily been somewhat reduced. Nevertheless, courses were held in 29 municipalities training 327 members of regular fire departments. These were in addition to purely local training programs carried out by fire department drillmasters. Classes were

(Continued on Page 10)

conducted for three groups of auxiliary firemen totaling 96 men. Training classes in four industrial plants reached 537 men. Sixty women were trained in Women's Defense Corps fire defense groups in three classes. Two instructor-training groups were held and 28 new instructors were certified.

MICHIGAN. Mr. M. D. Whale, Supervisor, Public Service Training reports that Battalion Chief Wallace F. Gannon, of the Muskegon Fire Department, has been employed during a six months' leave of absence to serve as an itinerant instructor for the Extension Service of the University of Michigan. Chief Gannon will promote and instruct town fire schools. Edward C. Rumsey, former Chief of Apparatus and High Pressure of the Detroit Fire Department has been engaged as an itinerant instructor in fire apparatus operation and firemen training through the Extension Service of the University of Michigan. His services will be employed in special fire training conferences and as a consultant in the full-paid fire departments of the State by the State Board of Control for Vocational Education.

MINNESOTA. Deputy Commissioner Leonard C. Lund, Fire Marshal Division, reports the following attendance at fire schools held in 1943: Northwest Fire School (a state-wide school) at St. Paul, May 17th-19th, 416 men from 100 departments; Cuyuna Range Regional at Browerville, June 6th, 83 men from 14 departments; Arrowhead Regional at Duluth, June 13th-14th, 140 men from 29 departments; West Central Regional at Granite Falls, June 20th, 75 men from 17 departments; Lake Region at Alexandria, June 27th, 108 men from 17 departments; Southwest Regional at New Ulm, July 18th, 280 men from 50 departments; United Fire Fighters at Chaska, July 25th, 169 men from 27 departments; Northern Regional at Crookston, August 1st, 100 men from 18 departments; Northwest Regional at Mahnomen, August 8th, 147 men from 19 departments; Southeast Regional at Austin, August 15th, 303 men from 47 departments; and St. Croix Valley at Osceola, August 22nd, 208 men from 28 departments.

In connection with each of the regional schools in 1943 there was a contest in drill evolutions. The winning team from each of these schools will take part in a final contest to be conducted at the 1944 Northwest Fire School. The winning teams included the towns of Brainerd, Keewatin, Canby, Sauk Centre, Pipestone, Waconia, Detroit Lakes, Crookston, Lake City and Osceola.

MISSOURI. Mr. M. I. Parker, of the Missouri Inspection Bureau, reports that 2,480 men received instruction in firemen's training during 1943. No regular fire schools were held but Capt. W. Bush Walden, Supervisor of Firemen's Training, State Department of Education, visited 53 towns in the interest of firemen's training work from January 1st to October 30th. Captain Walden held advanced courses in 15 cities and towns with an average attendance of 18 at each meeting. Individual certificates were issued to those in attendance at all meetings and satisfactorily completing the course based upon the State Firemen's Training Manual.

MONTANA. Chief Henry Quane, of Anaconda, reports that 49 firemen from 11 departments attended the annual fire school at Polsen, October 7th-9th. He writes, "We were well pleased with the attendance at the school. All attended the instructions and took part in all evolutions. In fact, we did not have a session at night or day that any one was absent. I think that is a record. This school is sponsored by the Polson Volunteer Fire Department" (member N.F.P.A.). "It was their fourth annual meeting and it is getting larger and better every year."

NEBRASKA. State Fire Instructor J. I. Fetters reports that "the firemen reached show a serious attitude toward fire training and although the number of men participating was somewhat less than in former years, we feel that much of lasting value has been accomplished." Mr. Fetters reports that it is planned to continue the field instruction throughout 1944, and to conduct ten or more zone schools and the annual State Fire College. During 1943, 2,037 men received training under the state program. Of these, 81 attended the annual State Fire College, 654 attended 13 zone schools, and 1,302 were reached by the field instructor.

NEVADA. Donald C. Cameron, State Supervisor, Trade and Industrial Education, writes: "I regret that it has not been possible to organize a training program during the current year. Our big obstacle lay in the inability to secure an itinerant instructor for field work."

NEW HAMPSHIRE. Did not hold annual fire school in 1943 largely due to transportation problems. Expect to have a summer session next year. All training during the past year has been on a local basis and most chiefs have continued to use the same program as in the past.

NEW JERSEY, BERGEN COUNTY. Chief George P. Lasher reports that 200 men from eight departments attended the fire school held at Edgewater from February 8th to March 29th. In addition two instructors visited nine departments in the county and gave instruction to 850 men. Due to the confusion in obtaining gasoline and the fact that many men were in the armed services, classes were not as large as previously.

NEW MEXICO. The Fire Service Training program was resumed last August. Former chief, F. W. Wynn, of Hobbs, has been selected as instructor. This training program is sponsored by the New Mexico State Teachers College, the State Department of Vocational Trade and Industrial Education, the State Council of National Defense, and the New Mexico State Firemen's Association, according to a report by Theodore A. Rosenwald, Secretary of the State Firemen's Association. Future plans call for the training of an instructor in each department.

NEW YORK. The Empire State took a leading place in the 1943 firemen's training picture. Albert H. Hall, Director, Office of War Training, and Chief, Bureau of Public Service Training, reported that 28,594 men representing 295 fire departments received training at 67 regional fire schools. Eleven instructors' conferences were attended by 464 men. Fourteen field instructors instructed 650 fire departments and reached a total of 36,094 men. The length of the courses varied from 2 to 30 hours. In addition to conducting regular schools, activities of instructors included: plant protection inspection, mercantile and public assembly inspection, fire prevention work, inspection of apparatus and equipment, and testing of pumps and water systems. The New York training program features visual teaching aids. These were exhibited at the Buffalo convention of the State Volunteer Firemen's Association. These models were also shown at twelve sectional conventions and many annual county meetings of firemen. A second unit of the Advanced Fire Training Course covering arson detection and investigation is in preparation.

NORTH CAROLINA. State Fire Marshal Sherwood Brockwell, Conductor of the Fire College and Drill School, reports that the fire college held in Charlotte last May, had an attendance of 351 men from 90 fire departments. Included in the attendance were representatives from nine military camps and bases. In addition to the state school, regional and local schools are conducted the year round. Among the regional schools were those at Asheville, Wilmington, Durham, Raleigh, Charlotte, and Greenville. On September 15–16, 1943, the Minges Drill Tower, a standard tower donated by Mr. and Mrs. M. O. Minges, Greenville, N. C., to the Greenville Fire Department was dedicated and put into use by the East Carolina Association in their 1943 Fire College and Drill School. This school was attended by 78 firemen representing 16 eastern North Carolina fire departments.

OHIO. According to Chief Walter T. Banning, of New Philadelphia, 1,069 firemen received training under the State firemen's training program in the last fiscal year. In addition training programs were conducted in five governmental arsenals located in the State, with an average of 20 hours of instruction given to each. If conditions permit it is hoped to conduct a fire college at Kent State University during 1944.

OKLAHOMA. W. Fred Heisler, Oklahoma A. & M. College, reports that because state supervisors and instructors were on government assignments the firemen's training program was handicapped in 1943. Mr. George Orgain is now full-time instructor. He is personally instructing volunteer fire departments and helping paid and part-paid departments to organize training classes. A full program is being planned for 1944.

OREGON. Winston D. Purvine, State Supervisor of Public Service Training, reports that 3,302 men received firemen's training in Oregon during 1943. Fire colleges are conducted the year-round at Portland, The Dalles, Baker, and Bend, with a total enrollment of 484 men. Six regional schools were held with a total attendance of 173 men. One week schools are continuing for members of the armed forces with enrollment totaling 1,604. In addition, 1,041 auxiliary firemen have received training under the State program.

PENNSYLVANIA. Arthur W. Espey, Head of the Fire School, Department of Public Instruction, reports that 3,232 men received training in the 1943 training program. Attendance at the Fifth Annual Firemen's Training Conference was 523, an increase of 331 over the attendance at the first conference in 1939. Of the 523 men, 489 completed one of the units of training offered at the conference. Classes have been regularly conducted for the fire services at Mechanicsburg Naval Depot; New Cumberland QMC Depot; Indiantown Gap Reservation; Letterkenny and Keystone Ordnance Depots; Cherokee and Pennsylvania Ordnance Works; and Carlisle Barracks, in addition to the regular classes for fire departments of the Commonwealth. The Fire School also shared in the responsibility of training approximately 45,000 auxiliary firemen with the Fire Defense Division, State Council of Defense.

During the past year the basic training course was increased to 54 hours of instruction and the advanced course remains at 30 hours. In the future it is intended to continue the program with both fundamental and extension courses including a newly developed course in Fire Department Administration. It is expected that some new manuals and other literature will be prepared for instructors and students.

WESTERN PENNSYLVANIA. The Annual Firemen's Training Institute sponsored by the Southwestern Pennsylvania Chiefs' Association was held at State Teachers College, California, Pa., September 6th-10th. The school was one of the best held to date and plans are being made for a larger program next year according to Secretary Henry Neill, of Vestaburg, Pa. The 178 men enrolled represented 48 paid, volunteer and industrial fire departments.

CHESTER COUNTY, PENNSYLVANIA. W. H. Backenstose, Zone Director of Firemen Training reports that graduation exercises of the Chester County Firemen's Association School of Practical Fireman Training followed fourteen weekly sessions of two and one-half hours each, beginning June 1st. The school was divided into four sections: *A.* Forcible entry and minor extinguishment, salvage and overhaul, fire department rescue, rope work and gas mask instruction. *B.* Ladder practices. *C.* Hose practices. *D.* Fire apparatus and light plants. Twenty-four Chester County companies and two Lancaster County fire companies were represented. Three hundred and fifteen men were enrolled and 155 qualified for Public Service Institute Certificates.

TEXAS. Dr. C. C. Hedges, Director, Firemen's Training School, reports that 398 men received training under the State program in 1943. This does not include the work of the fire service instructor Chief Frank Williams. Each evening Chief Williams visited groups consisting of two to four fire departments, giving from 2 to 3 hours of instruction. Attendance was somewhat hindered during the year by reduction in number of firemen due to the draft, and firemen working in defense plants on the night shift. Present plants are to hold the Firemen's Training School May 10–16, 1944. Chief Frank Williams plans to visit the departments having the highest fire losses.

VIRGINIA. Harold I. Baumes, Executive Secretary, Virginia League of Municipalities, reports that the three itinerant instructional programs conducted by the State Division of Trade and Industrial Education in co-operation with the League of Virginia Municipalities, reach every section of the state. At the request of the War Department, training has also been extended to various Army camps and ordnance plants. A number of zone training schools in the larger fire departments also continued their operations.

WASHINGTON. Capt. J. R. Cook, Fire Department Instructor, State Board for Vocational Education, reports that 4,413 men received training in the 1943 firemen's training program up to October 21st. The state operates a continuous training program conducted by one full-time and 15 volunteer instructors. These men hold an annual fire department instructors' conference. Instructors taking part in fire schools are not allowed to read a paper but must actually demonstrate the subjects taught. Captain Cook reports: "We try to improve our fire school program each year, and we have lots of good volunteer fire departments. If you don't think so, just try them out on hose evolutions, etc."

W. A. Groce, Director, Civilian Protection, Washington State Defense Council, reports that the fire service in the state is in "a rather deplorable condition," due to men leaving for employment in war industries and the effect of selective service. He adds, "We did hold a two-day school in Yakima

(Continued on Page 20)

A.D.T

Electric Protection Services

FIRE • BURGLARY • INTRUSION • HOLDUP • SABOTAGE

American District Telegraph Company (A.D.T. System) is the only nation-wide organization specializing in electric protection services. A.D.T. manufactures and installs electrical protection systems to safeguard lives and property against the hazards of fire and unlawful intrusion. Systems also are provided for the supervision of watchmen and guards and of certain industrial processes. The protection equipment within each customer's premises is connected with an A.D.T. Central Station where skilled attendants stand constant vigil and respond to alarms by dispatching armed and bonded private guards, the police, the fire department, or by initiating whatever other action may be required by the nature of the emergency. In localities where Central Station service is not available, the protection system usually may be connected to the local police or fire department.

FIRE PROTECTION SERVICE

• *Sprinkler Supervisory and Waterflow Alarm:* Automatically detects and reports trouble conditions (whether caused maliciously or otherwise) that might impair the sprinkler's effectiveness. Automatically summons the fire department the instant a sprinkler head opens or in case of a serious leak.

• *Aero Automatic Fire Alarm:* (For unsprinklered areas, or in conjunction with sprinklers.) Automatically detects fire when it starts, and automatically summons the fire department.

• *Manual Fire Alarm:* Available in various types—for summoning the fire department, for sounding local alarms to warn occupants, or performing both functions.

• *Automatic Fire Control for Air Duct Systems:* Provides automatic fire and smoke detecting and reporting devices for air conditioning, ventilating and other air duct systems. Automatically closes dampers, stops fans, etc., and summons the fire department.

INTRUSION DETECTION SYSTEMS

• *Burglar Alarm:* Protection for doors, windows, skylights, etc., by means of electrified screens, foils and similar devices.

• *Holdup Alarm:* Provides means for transmitting a silent signal to summon police in case of holdup or other emergency.

• *Invisible Ray Alarm (Photoelectric):* Projects beams of invisible light across indoor or outdoor areas. Interruption of beam by any person or vehicle results in an alarm.

• *Telapproach:* Establishes an electronic field and produces alarm upon approach of any person into the electrical field.

• *Phonetalarm:* A sound detection system especially adaptable for protection of vaults containing valuables such as specie, securities, confidential plans and documents, narcotics, gauges, tools, etc.

• *Emergency Police Call:* Provides means for summoning police direct to premises in case of emergency.

PATROL SUPERVISION FOR WATCHMEN AND GUARDS

• *Central Station Watchman's Reporting Service:* Provides signaling stations electrically connected to the A.D.T. Central Station to which the watchman reports at prearranged intervals. Failure to signal is immediately investigated.

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CENTRAL STATIONS IN ALL PRINCIPAL CITIES OF THE UNITED STATES

Spring Clean-Up Campaign — 1944

NEVER before in the history of this nation has there been so great a need for the conservation of our resources and the prevention of waste.

For many years cities and towns throughout the United States and Canada have begun their annual Fire Prevention Clean-Up Campaigns each spring. No cash estimate can be placed on the actual value represented by the saving of life and the improvement in health and property resulting directly from these annual Clean-Up Campaigns. They remove disease-breeders which may cause pestilence, eliminate fire hazards which could lead to conflagrations, and remove other hinderances to municipal development. The date for a Fire Prevention Clean-Up Campaign varies with individual communities. It should be held as early in the spring as possible, starting perhaps in March in the South and Southwest, and in April in the North.

The 1944 Clean-Up Campaign can be turned into a personal double-pronged attack on Hitler and his gang. Cleaning out the rubbish in our homes, as a result of this annual drive, converts this rubbish from fire hazards which menace the home front, into weapons of war for the battle front because this year the Clean-Up Campaign is part of the scrap salvage drive. Millions of tons of scrap metal, rubber, paper and other products must be brought out of storage in cellars, attics and garages and put to work for Victory.

At the present time paper is our No. 1 shortage. Due to the manpower shortages in the forests, together with the lack of pulp, formerly imported from northern countries, the shortage of pulp has become more acute each month. The lack of pulp has meant a greater reliance on the salvaging of waste paper for use as a pulp substitute. The U. S. Government has set a goal of eight million tons of waste paper for 1944. Every scrap of waste paper is needed, especially brown papers and containers. Old boxes, cartons, store bags, envelopes, corrugated paper, newspapers, magazines and waste basket paper, all are urgently needed.

CLEAN-UP WEEK is observed by fire departments by making special inspections of buildings, yards and lots to get people to remove fire hazards. The community may be divided into districts and groups of men assigned to work in such areas.

It is not enough to tell people that they ought to get rid of any rubbish in their cellars or attics. It is a good plan for the fire department to arrange to have rubbish removed. If the city or town has not a regular rubbish removal service, it is a beneficial fire prevention move to get such a service organized. Some fire departments make public announcements each day, during the Clean-Up drive of the number of truck loads of rubbish collected. This can be tied in directly to the local war salvage campaigns. The sale of rubvish and scrap may bring some cash for the fire department or some other worthy cause.

The attractive two-color poster shown above for use in the 1944 campaign is printed in yellow and black. 12-in. by 16-in. size, and has space at the bottom for printing the name of the local fire department, if desired. This poster is available for general distribution and copies may be secured from the N.F.P.A. Executive Office at $2 per hundred, $15 per thousand, imprinting extra. Sample copy on request.

No fooling, the paper shortage is the most serious shortage before the country today. The War Production Board has stated that the paper shortage is "more critical than any secondary material shortage that has yet existed during the war."

Is there any reason for us to be less earnest in our efforts to relieve this need than we were when the scrap rubber and scrap aluminum drives were conducted. A recent report by the government stated that most of the scrap rubber turned in was found usable and greatly relieved the limited supply of rubber while the synthetic plants were getting into operation.

We all know that old paper and cartons are a distinct fire hazard when left in buildings. These materials are essential in the manufacture of the large numbers of cartons needed to ship goods to the fighting fronts.

In making dwelling inspections firemen can point out that much of the material causing serious fire hazards in basements and attics does not only consist of waste paper or rags, which can be turned into tools of war, but hundreds of other combustible objects such as house furnishings or clothing which have been put aside as no longer needed. The chances are that if old lamp shades, ladies' hats or other worn clothing is sent to the basement or attic because they are outmoded, they will not be used again and should be contributed to local charities.

BANNERS and signs may be used on fire apparatus to bring the Spring Clean-Up Campaign to the attention of the community. Home inspection blanks may be furnished school children so that they may inspect their own homes. Contests may be held and prizes offered for essays on the benefits to the community of the Clean-Up Campaign. "Before and After" window displays are always effective.

Preceeding the week for which the campaign is set, publicity should be given to it in the local newspapers. News articles on aims of the drive, editorials, and newsworthy pictures should be included. Local merchants are glad to co-operate because the campaign increases the sales of clean-up and paint-up materials.

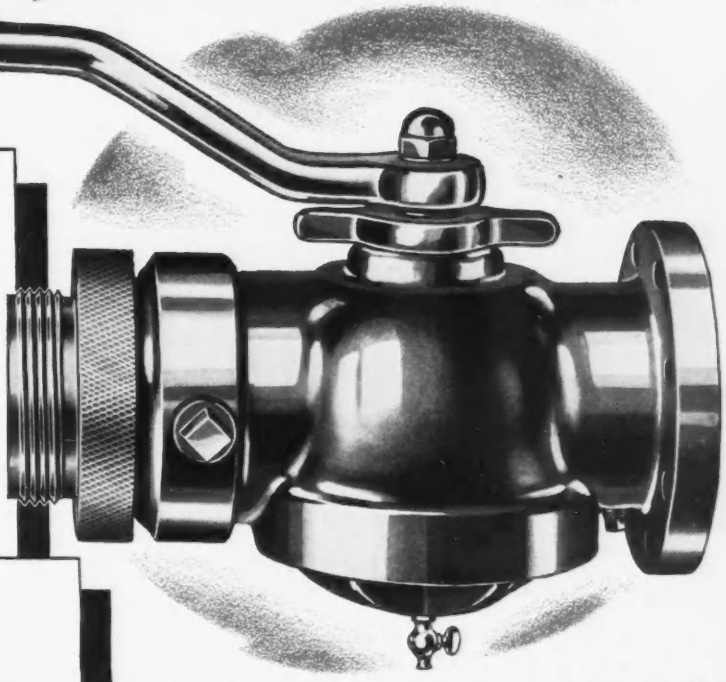
A new pamphlet on what to do during a week's campaign has already been mailed to fire departments which are members of N.F.P.A. This pamphlet gives suggestions for a program of work to do each day of the week set aside for the campaign. There is a sample proclamation which the mayor may issue to inaugurate the program. Sample copies of this pamphlet are available to readers of VOLUNTEER FIREMEN. Additional copies may be obtained from the Executive Office at $2 per hundred.

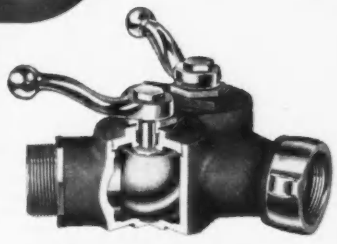
The N.F.P.A. is preparing additional material for those wishing to arrange newspaper and radio publicity for the Clean-Up Campaign. This may be obtained without charge by any member on request to the Executive Office.

The annual Clean-Up Campaign is sponsored by the N.F.P.A. Committee on Fire Prevention and Clean-Up Campaign. Those desiring assistance in organizing their local campaigns should write to the Chairman of the committee, Mr. T. Alfred Fleming, 85 John St., New York, New York. After the local campaign a full report should be made to the Chairman of the N.F.P.A. Committee on Fire Prevention and Clean-Up Campaign with copies of newspaper articles, prize essays, winning posters, and other material including a full outline of the results.

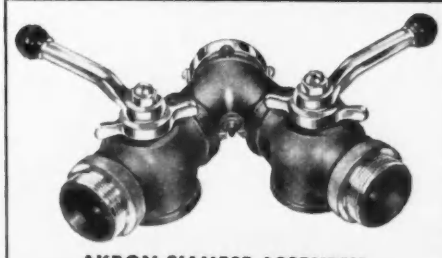
AKRON FULL FLOW "BALL TYPE" VALVES

AKRON "BALL TYPE" SHUT-OFF NOZZLE AND PLAY PIPE ASSEMBLY





AKRON FULL FLOW "BALL TYPE" VALVE SIAMESE



AKRON SIAMESE ASSEMBLY

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Numerous exclusive construction features of Akron Full Flow "Ball Type" Valves are covered by numerous patents.

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WOOSTER, OHIO

AKRON BRASS
FIRE FIGHTING EQUIPMENT

Tulsa's Bowling Alley Blaze

By L. E. Antene, Manager
Oklahoma Inspection Bureau

AT 2:43 P.M. on January 12th fire occurred in the Wagles Recreation Alleys in Tulsa, Oklahoma, and before being brought under control destroyed the alleys, two nearby private garages, and damaged several other nearby buildings. The blaze started in a sanding and shellacing room located in the northeast corner of the building, four feet above the alleys. It was believed started by a spark from an electric sanding machine in an area containing flammable vapors and dust at the floor level.

This building was of typical construction for the occupancy; one story in height with brick bearing walls. The roof was of wood surfaced with approved composition supported by unprotected steel trusses. The floor was of concrete on earth with wooden alleys and floor surfacing with approximately a 12-inch air space insulated beneath with fibreboard acoustical material. There was a fibreboard ceiling. There was a gas-fired unit heater suspended from the ceiling but no heaters in the pin room. There was inadequate first aid fire protection.

The bowling alley was open for business the afternoon of the fire with the usual number of employees on duty. Eighteen or twenty persons were in the building and only ten or twelve of these were bowling. Two employees were in the pin room sanding and shellacing pins. This work consisted of sanding pins with an electric sander and dipping them in an open vat containing a half-gallon of shellac. This room was equipped with an exhaust fan above the work bench but the fan was turned off and covered with burlap to keep out the cold, thus preventing escape of flammable dust and vapors.

The employee engaged in dipping the pins says he was not aware of any fire until he noticed that his feet were surrounded by flame. The dipping vat was approximately eight feet from the sanding machine. He immediatley dumped a bucket of water at his feet which only served to spread flames over the entire pin-room floor.

The other employee in the meantime was trying to extinguish the blaze with a hand chemical extinguisher but found himself and his companion being cut off by flame. They leaped through the flame and closed the door behind them. One of the employees shouted to the manager who immediately telephoned to the fire department. The manager then obtained a hand extinguisher and went back to assist in fighting the fire. They knocked the glass out of the pin-room door and attempted to put out the blaze. Seeing they were making no headway they were forced to withdraw and await the arrival of the fire department. The first alarm was received at 2:46 P.M. and the fire department responded with two 750 g.p.m. pumpers and a 500 g.p.m. pumper-ladder truck. Upon arriving two firemen entered the building from the front. From all appearances the fire was small and had little headway. The fire was confined to the pin room and along the ball stop at the rear of the building. By the time these men reached the center of the building they saw small flames advancing rapidly toward them on each of the alleys, although the wood construction of the alleys was not ablaze. At the same moment a rolling mass of flame burst out at the ceiling line and threatened to envelop them. They started to run from the building and as they reached the front door an explosion blew them into the center of the street. This explosion loosened the roof and broke windows.

When the men regained their feet, flame was rolling from the door and windows. The second alarm was immediately sounded and was received at 2:52 P.M., bringing two more pumper companies. One fire truck was moved to the rear of the building. In the intervening time of two or three minutes a second explosive puff occurred. This was believed caused by rupturing of containers of pin lacquer, clear pin renewer, lacquer thinner, paint, shellac, and a substance known as "Mineralastic." These were all kept in ordinary five and two-gallon metal receptacles in the pin room. Mineralastic is recognized as a very highly volatile combustible material and is used

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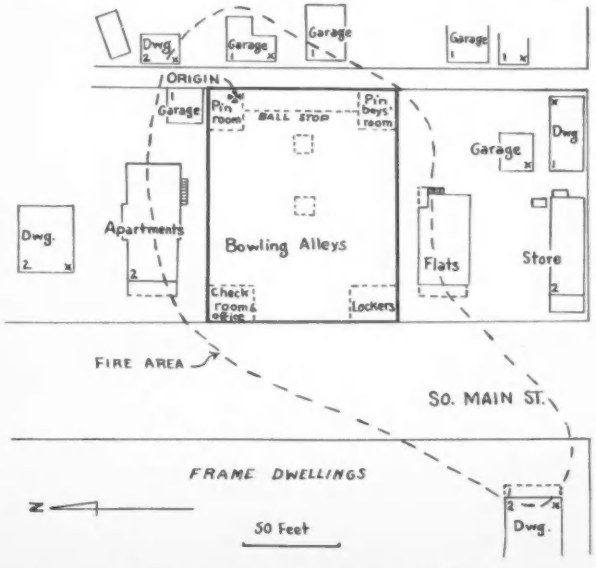

Photo of Battleship North Carolina taken from accompanying vessel. Official U. S Navy Photograph.

Proudly She Sails
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Confident in the efficiency of her offensive armament — there is equal assurance in her defense against attack, strengthened by recent developments in fire protection.

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C. L. Cochrane, Rear Admiral, U.S.N.
Chief of the Bureau of Ships"

National Foam Fire Protection has been adopted by most large oil refineries and many other important industries.

★ ★ ★ ★ ★

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WAR DEPARTMENT
OFFICE OF THE UNDER SECRETARY
WASHINGTON, D. C.

23 December 1943

To the Men and Women
of the Chippewa Falls and
Chicago Avenue Plants
W. S. Darley and Company
2810 Washington Boulevard
Chicago, Illinois

This is to inform you that the Army and Navy are conferring upon you the Army-Navy Production Award for your fine achievement in the production of war equipment.

This award consists of flags to be flown above your plants and a lapel pin, significant of major contribution to victory, for every individual in your plants.

The high and practical patriotism of you men and women of the Chippewa Falls and Chicago Avenue Plants is inspiring. Your record will be difficult to surpass, yet the Army and Navy have every confidence that it was made only to be broken.

Sincerely yours,

ROBERT P. PATTERSON,
Under Secretary of War.

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TRIPLE COMBINATIONS
CRASH TRUCKS
HIGH PRESSURE FOG PUMPERS
TRAILER AND SKID
MOUNT PUMPERS

W. S. DARLEY & CO.
CHICAGO 12, ILLINOIS

MEMBERSHIP REPORT

N. F. P. A. Volunteer Firemen's Section

LAST month 32 fire departments with 337 men were newly enrolled in the N.F.P.A. Volunteer Firemen's Section. Ninety-seven departments with 1,508 men renewed membership. The number of departments enrolled, 1,049, is the largest in the history of the section. Included in this total are more than two hundred industrial fire brigades protecting vital war plants. The new enrolled members are shown below.

Paris Fire Department, Paris, Ark.
Engine Co. No. 1, Alameda Fire Department, Alameda, Calif.
Florida State War Inspection Service, Jacksonville, Fla.
State Fire Insurance Fund, Kissimmee, Fla.
Jerseyville Fire Department, Jerseyville, Ill.
Memphis Fire Department, Memphis, Mich.
Westwood Fire Department, Kalamazoo, Mich.
Blackduck Volunteer Fire Department, Blackduck, Minn.
Forest Lake Fire Department, Forest Lake, Minn.
Hastings Fire Department, Hastings, Minn.
Thief Falls Fire Department, Thief Falls, Minn.
Dutton Volunteer Fire Department, Dutton, Mont.
Meredith Fire Department, Meredith, N. H.
North Sutton Volunteer Fire Department, North Sutton, N. H.
Cresskill Volunteer Firemen's Association, Cresskill, N. J.
Community Volunteer Fire Company No. 3, Plainfield, N. J.
Angelica Hose Company, Angelica, N. Y.
Brewster Volunteer Fire Department, Brewster, O.
Grandview Heights Fire Department, Columbus, O.
Waynesburg Fire Department, Waynesburg, Ohio
Carnegie Fire Department, Carnegie, Okla.
Alpha Fire Company No. 1, Littlestown, Pa.
Mercer Fire Department, Mercer, Pa.
Columbia Fire Company No. 1, Roseto, Pa.
Springfield Fire Company, Springfield, Pa.
Friendship Hose Company No. 1, Spring Grove, Pa.
Loyalsock Township Volunteer Fire Company No. 1, Williamsport, Pa.
Washington Fire Department, Washington, R. I.
Floydada Fire Department, Floydada, Texas
Dunmore Hose Company, Brandon, Vt.
North Prairie Fire Department, North Prairie, Wis.
Dominion Skyways Fire Department, Malton, Ont., Canada

MEMBERSHIP PLAN

- Through the Volunteer Firemen's Section, fire companies may become N.F.P.A. members. Each member fire company is entitled to have VOLUNTEER FIREMEN magazine sent to the homes of ten firemen.
- As a member, the fire company receives at headquarters a set of all other regular N.F.P.A. publications. This includes the QUARTERLY MAGAZINE and monthly NEWS LETTER.
- Membership in the National Fire Protection Association costs ten dollars per year. If more than ten firemen want to receive the magazine, an additional one dollar should be sent for each additional fireman enrolled.

(c) King Features

"He refuses to jump — says it's the first time he's been warm all winter!"

You MUST Have
800 LBS. PUMP PRESSURE
for High Pressure Fog Fire Fighting

HOME NEAR CITY SAVED FROM FIRE

High Pressure Truck Confines Damage to $1,200 On Glen Shaw Dwelling

The home of Glen Shaw, located east of East Lansing on US-16, just west of Coral Gables night club, was saved from destruction by fire early Tuesday morning as the result of the use of water under high pressure from a John Bean Manufacturing company fire truck, which makes practically all fire runs in central Michigan.

Although damage was estimated by state police at $1,200, three-fourths of the contents were undamaged and the chief loss to the dwelling was above the furnace in the center of the house.

Mrs. Shaw smelled smoke about 2:45 a. m. and called for fire companies. The Meridian township department was first to arrive, but the blaze had gained much headway and this company was handicapped by lack of water. The John Bean truck made the run from Lansing and its arrival with water, claimed to be 10 times as effective under high pressure, was credited with saving the house.

An overheated furnace was given as cause of the fire.

FMC High-Pressure Fog Fire Fighter Saves Home. *Above account from Lansing, Mich., State Journal tells but one of hundreds of stories of the efficiency of FMC Fog Fire Fighters — all over the country.*

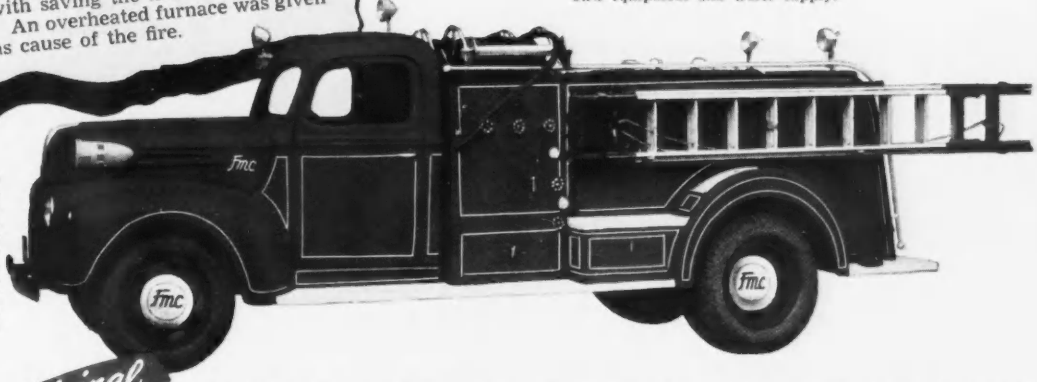
FMC Revolutionizes Fire Fighting Technique

800 lbs. pump pressure is the most efficient pressure for quick quenching with a minimum of water. If *pump* pressure is not that high, you cannot get the 600-700 lb. *nozzle* pressure needed to deliver the super-fine FMC fog that extinguishes fires so much faster—with little or no water damage or water shortage.

For that reason, the very heart of the FMC Fog Fire Fighter is its exclusive high-pressure pump. It easily maintains 600-lb. *nozzle* pressure, which breaks up water so fine that one gallon, properly used, gives you the fire-quenching possibilities of 10 to 35 low-pressure gallons.

FMC Fog Fire Fighters have proved themselves on hundreds of fires all over the country. They should not be confused with any other method of fire fighting. For complete details, write John Bean Mfg. Co., Lansing, Michigan, or Bean-Cutler Division, Food Machinery Corporation, San Jose, Calif.

FMC Fog Fire Fighter Truck. *Carries own equipment and water supply.*



FMC *Original* **HIGH-PRESSURE FOG FIRE FIGHTER**

FOOD MACHINERY CORPORATION

JOHN BEAN MFG. CO., 726 HAZEL ST., LANSING 4, MICH. • BEAN-CUTLER DIVISION, 426 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 50 YEARS

1-2-3--OUT!

Fire takes a fast knockout when PLUS-FIFTY DUGAS Dry Chemical comes into the picture. For PLUS-FIFTY DUGAS Dry Chemical brings you fire-stopping power of amazing swiftness, sureness.

As speedily as it strikes flames, PLUS-FIFTY DUGAS Dry Chemical releases a large volume of fire-smothering gases that quickly prevent small fires from becoming big ones. And PLUS-FIFTY DUGAS Dry Chemical is harmless to both men and machines.

PLUS-FIFTY DUGAS Dry Chemical comes to you ready for instant fire-fighting duty. Stays that way, too... won't deteriorate during storage.

Write us today for additional facts, along with priority information regarding DUGAS Fire Extinguishing Equipment.

Approved by Underwriters' Laboratories and Factory Mutual Laboratories.

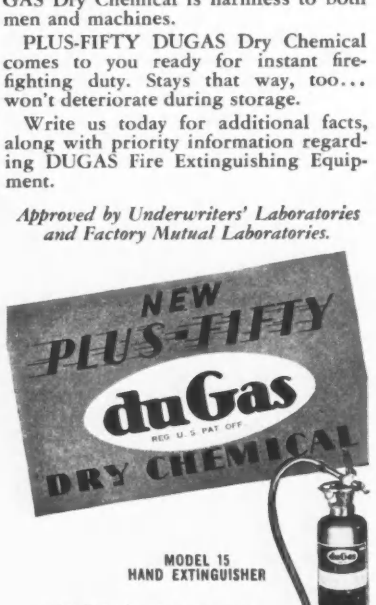


CHART showing characteristics of all types of approved hand fire extinguishers sent FREE on request.

DUGAS ENGINEERING CORP.
OWNED AND OPERATED BY
ANSUL CHEMICAL COMPANY, MARINETTE, WISCONSIN

A Study of Fires in the Second Year of War

By Louis G. Schraffenberger, Chief
Fire Defense Section, Protection Division
U. S. Office of Civilian Defense

A BREAKDOWN of the record recently published by the N.F.P.A. entitled "Fires in the Second Year of War" brings out some very interesting facts. These are such that all of us in the fire protection field should give them special attention. In many cases it is a matter of inadequate inspection and in others the need of public education that has been responsible for these serious fires. Most of the causes are of the common hazard type. With plenty of consistent effort along the line of inspection and public education a very satisfactory fire prevention result can be had.

Fires in the metal working industry, lumber and mill-working establishments, and foodstuff warehousing and manufacturing concerns predominated last year among the fire losses hindering the war effort. In all three of these classes the number of fires with over $10,000 loss reported in this record, exceeded fifty. We all recognize the importance of these industries. By giving persons engaged in these occupations a clear picture of fire causes likely to affect their plants there is no question but that our fire prevention efforts will be appreciated.

The metal working industry is having a lot of fires from sparks from cutting and welding operations. This is a matter that the inspector must discuss with the plant officials. This type of work should be done in places where sparks cannot create difficulty. The point where welding and cutting equipment is to be used should be selected by the factory superintendent or foreman. If it cannot be done in a non-combustible location, first aid fire extinguishers should be close by. However, this work should never be done in explosive atmospheres such as places where spray finishing is being done or where open containers of flammable liquids are present.

In one instance a plant was completely gutted because the operator was working in the vicinity of an open container of benzol, and in another case near lacquer thinner. The men in both instances had no knowledge of the fire behavior of these products and the factory officials were not sufficiently interested to check the locations for possible fire hazards before the work was started.

It is in cases of this nature that missionary work is necessary. While it takes considerable time to do it, it is well worth the effort and is one of the greatest contributions that the fire service can make to the nation at war. That is the view we must take. Merely talking fire prevention in a general way is not enough. We must be specific and take our recommendations to the persons who can put them in action.

Spray booths of the improvised type also create a lot of fire trouble. Lack of explosion proof electrical equipment, sparking fan motors, and lack of proper ventilation are frequent cause of fires. Rubbish accumulations in boiler rooms, metal turnings such as magnesium, hot bearings, hot rivets, molten metal being spilled on unprotected floors, improper clearances over heating equipment or lack of proper insulation, are other matters for both the inspector and owner to think about.

IN wood-working plants the causes of major fires last year were in the main as follows: ignition of sawdust and shavings transmitted by duct systems to the boiler rooms for burning, spontaneous ignition, careless smoking, improvised spray booths, defective motors, sparks from motors, hot coals, and defective oil heaters. Overheated dry kilns also were decidedly in the picture.

The foodstuff manufacturing and warehousing concerns had a fire loss of over $10,000,000 during 1943. Considering the fact that most of our food is rationed, this sort of thing is not very pleasant to think about. When we look over the causes of these fires, all are of the kind that could have been eliminated. The causes were defective flues, dust explosions, grass fires igniting structures, overheated furnaces, careless smokers igniting packing materials, defective wiring and improper fusing of electrical equipment, sparks from motors, overheated bearings, welding and cutting operations, and rubbish igniting spontaneously.

This is not a time for criticizing persons in the above-mentioned industries, but it is a time for helping them both by inspection and educational work. Many organizations are busy almost beyond endurance, and their chief thought is maximum production. Consequently, unless they have experienced a bad fire their thoughts normally do not run to fire prevention. Our most essential job is to show them that adherence to fire prevention practices is essential to assure continued production.

Major General U. S. Grant, III, shown presenting Colonel Clarence Goldsmith, Assistant Chief Engineer of the National Board of Fire Underwriters, a ribbon award for over 6,000 hours of volunteer service to the U. S. Office of Civilian Defense. Louis G. Schraffenberger, Chief, Fire Defense Section, OCD, smiles his approval. Colonel Goldsmith is a highly valued member of a number of N.F.P.A. committees including those on Firemen's Training, Municipal Fire Apparatus, Farm Fire Protection, and Field Practice.

THE SIDEWALK CHIEF

By D. L. A. WILEDEN
Mason, Michigan

I've been asked to tell you of a few facts,
Bout the sidewalk chief and how he acts.

He is always present in every crowd,
And always appears where he's not allowed.

He first has to ask why you came so slow,
What's ailing the engine why don't it go.

Well now that you're here, he's got all the clues,
It's sure a bad fire so find a hydrant to use.

Hurrah boys, off with the hose, no time to relax,
Throw off the lanterns, bars, nozzle and axe.

Grab it here, haul it there, why all the mixup,
I've seen them fight fires since Tige was a pup.

Hook up the hydrant, turn pressure on fast,
Where is the hold up, give her full blast.

Here is some fire sure see that smoke,
Somebody should give that window a poke.

Before you know the airlock is broke,
In comes the heat and you just about choke.

About this time for him its too hot,
So on out he goes to some other spot.

Instead of assisting to carry things out,
He stands in the way to yell and shout.

Put up the long ladder, climb clear to the top,
Keep on climbing up you've no time to stop.

Now what can you do he says as he knows,
You'll have to come down and take up the hose.

You should have known better than do as you're told,
You're just showing off your not so bold.

Well after he's pestered and bragged all around,
The fire is put out and tools all are found.

He waves fond farewell and goes on his way,
While you tired wet firemen call it a day.

He knows all, sees all and tells everyone,
What is, where, was, and how it is done.

CIRCUL-AIR

THE AIR CONDITIONING
FIRE HOSE DRYERS

Do A Better Job

in 1/10 the TIME • ¼ the SPACE • with ½ the Work — *or less*

Save Building and Repair Costs and
Improve New Station Design
A PEACETIME ASSET — A WARTIME NECESSITY

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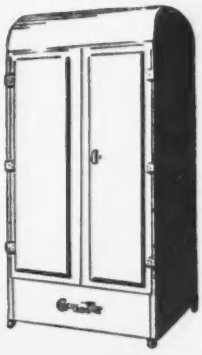

And over 125 Cities,
Villages and Townships

THE CIRCUL-AIR CORPORATION
6339 East Palmer ··· Detroit 11 Mich.

MIDWESTERN

Canvas or Rubber Type

FIREMEN'S COAT

Illustrated at right is Midwestern's No. 101 Fireman's coat, which is highly serviceable and popular in both Volunteer Departments and the larger municipal departments throughout the country. Flexible elastic inner sleeve for wrist to keep out water, cold and sparks; adjustable collar strap, detachable wool lining, Midwestern Safety snaps, two outside pockets, 6-inch storm flap and many other fine Midwestern qualities. See your local Midwestern distributor for prices and literature, or write the factory.

MIDWESTERN MFG. CO.
MACKINAW, ILLINOIS

Fire cannot burn without air. With swift efficient action *C-D/Fog* completely surrounds fire with a blanket of carbon dioxide. *Air is sealed out.*

C-D/Fog is especially recommended for oil, gasoline, electrical, or chemical fires. Built by General Detroit, manufacturers of fire protection equipment since 1905, *C-D/Fog* comes from a distinguished line of fire fighters, including such famous names as Fire Guard, Alaskan, and Floafome. Like all General products, it is quality mass produced for prompt delivery to essential users.

Find out about *C-D/Fog* today! Mail the coupon and details will be rushed!

THE GENERAL DETROIT CORP.

Former Name The General Fire Truck Corp.

NEW YORK DETROIT CHICAGO

Distributors in all principal cities

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2200 East Jefferson Ave., Detroit 7, Mich.
SPEED complete details to:

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Just attach this convenient coupon to your letterhead and mail.

Firemen's Training Report

(Continued from Page 10)

on September 5th-6th, with an attendance of almost four hundred. We anticipate conducting a four-day school in 1944 if conditions will permit."

WEST VIRGINIA. Fifty fire departments were represented by the 285 men who completed training work at the Thirteenth Annual Fire Service Extension School held at West Virginia University, Morgantown, July 26–29, 1943. The total number of men receiving training in the state firemen's training program during the year was 412.

WYOMING. State Director of Vocational Education, Sam Hitchcock, reports that 374 firemen received training in 1943. A series of 30-hour, 10-day fire-fighting courses were conducted at all major centers under the Vocational Division of the State Department of Education. Two fire officers appointed as itinerant instructors attended a teacher-training course at Stillwater, Okla. Follow-up training programs will be available in 1944 for departments that received training last year. It is also hoped to complete the schedule of the instructors.

ONTARIO. Fire Marshal W. J. Scott reports that approximately 900 men received firemen's training in Ontario during 1943 under the provincial program. This included an attendance of 97 men from 30 communities at the Central School, held at the University of Toronto, November 17–20, 1943. Marshal Scott adds: "Gasoline shortage and other travel difficulties and decreasing interest in civilian defense curtailed training programs and reduced school attendance." In addition to the Central School, two regional fire schools were held, an instructors' conference was attended by 75 men, and two part-time field instructors visited 40 fire departments. An average of 2 hours instruction was given to each department.

Forest Fire Fighting Training in Wyoming

By Sam Hitchcock

State Director, Vocational Education

KEEPING in mind that the Wyoming Forest Fire Fighting Service is a statewide organization planned to function in rural and urban areas and includes all state, private, and federal lands, the training material used and the method of presentation must be flexible so that it will meet the needs of any local group.

The primary objectives of the program are fire prevention and fire suppression. In establishing a sound fire prevention program the public must be reached. The necessary co-ordinated work gives each community a desirable background for training in actual fire suppression.

The fire prevention program is presented to the public by motion pictures of fires, fire costs, control and related subjects. Lectures to schools on fire hazards include discussion of costs of fire, elimination of fire hazards, and fire suppression methods. Fire prevention literature is distributed to all schools so that every home in each county is reached. Newspaper articles are used to arouse interest. Composition writing within the schools on fire prevention and fire hazard subjects are encouraged. Some contests have been sponsored. Where possible local theatres are used to get the information to the public.

Material used for this prevention work is obtained through the various state and federal agencies. The co-operative film library at Laramie, the Forest Service and the Office of Civilian Defense have furnished films. Publications put out by the National Fire Protection Association, the Forest Fire Fighters Service, federal agencies and others, were used.

Considering that this work must be done at the convenience of local people, and that the type of group varies from grade school students to adults, it would not be practical to follow a definite course of study. Time would not permit a complete coverage of all this material at any one meeting. Regardless of time, age, or size of group, certain fundamental ideas are presented. They are: 1. Look for and eliminate as many existing fire hazards as possible. 2. Learn and put into practice sound fire prevention habits. 3. Be prepared with knowledge and equipment to fight fires if they should come. 4. Report all fires immediately upon detection. 5. Start fighting a fire as soon as possible.

The fire suppression work follows a more definite line, but also must be quite flexible to meet local conditions. The following outline can be developed in detail or condensed to meet local needs:

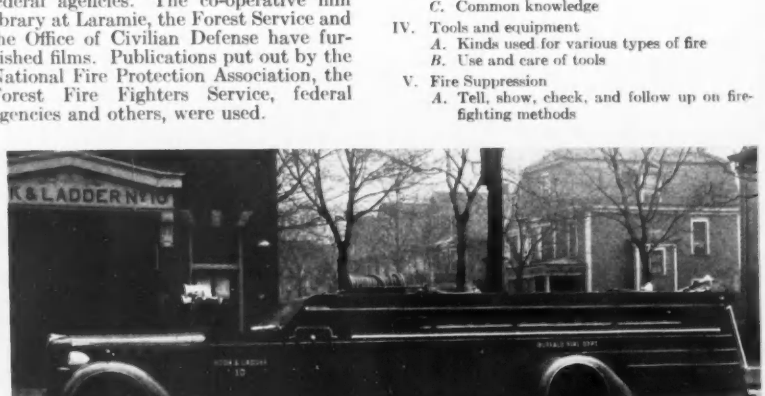
I. The purpose of the course
   - *A.* Arouse interest
   - *B.* Give background of forest-fire-fighting service, statewide and local.

II. Fire behavior — Kinds of fires
   - *A.* Fuel, wind, slope, etc.
   - *B.* Forest, brush, prairie and farm fires

III. Safety
   - *A.* Work procedure
   - *B.* Dress
   - *C.* Common knowledge

IV. Tools and equipment
   - *A.* Kinds used for various types of fire
   - *B.* Use and care of tools

V. Fire Suppression
   - *A.* Tell, show, check, and follow up on fire-fighting methods



The fire department of Buffalo, N. Y., has just accepted delivery from the Buffalo Fire Appliance Corp. of the above pumper-ladder truck. The pumping unit is a 1,000-gallon two-stage series parallel centrifugal pump. The truck carries 279 feet of ladders and 1,000 feet of hose.

Tulsa's Bowling Alley Blaze

(*Continued from Page 14*)

in finishing and polishing alleys. The fluid is a varnish substitute and is said to have a nitrocellulose base. It was used but once a month and had not been used for some time before the fire.

The second explosion blew out the rear wall which had but one opening in order to confine the noise from the bowling alley. When this wall fell, the rear section of the roof collapsed and the fire was soon beyond control. The main effort of the fire department was thereafter directed toward protecting exposures. Hose used included 1,100 feet of 3-inch, 1,450 feet of 2½-inch, and 200 feet of 1½-inch.

DIFFICULTY in obtaining shellac and lacquer for refinishing bowling alleys and pins because of the war has brought about the use of substitutes which create hazards to life and property not previously anticipated in bowling occupancies. The origin of this fire and the rapidity with which it spread is evidence that extreme caution must be exercised in the use and storage of these materials.

Subsequent to this fire, investigation of a number of other such occupancies indicates that they are being used generally and, while the operators apparently know they are dealing with a dangerous substance, little or no precaution against accident has been taken.

The materials in general use consist of two finishes with trade names of "Pin Life", which is used in conjunction with "Pin Life Thinner," and "Mineralastic," which requires no thinner. They consist of a base which apparently is of a hazard similar to "celluloid," dissolved in a very light vehicle, presumably acetone. Pins which are usually finished in a cramped location having no positive ventilation, are smoothed by a small lathe or sander, and dipped in a container of this finish. They are then set on a metal trough to dry. Excess finish usually drains into an open metal container.

These processes are frequently exposed to open flame gas stoves and unsafe electrical conditions. The dipping process should be conducted in an incombustible enclosure, well ventilated, without heat or heated by steam from an outside source, and any electrical installations should conform to standards for explosion-proof installations. Some alleys are refinished as often as once each week with this flammable material. They are first cleaned with "APCO" cleaner which apparently is non-flammable and resembles prepared chalk in suspension. This is brushed off and the finish applied with a hand brush. Drying requires about three hours.

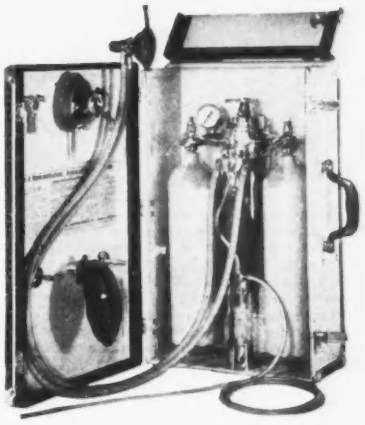
Operators state that when alleys are being refinished with this material, all open flame heating devices are shut off and all windows raised, indicating that they are aware of the extreme hazard prevalent in applying this material.

It is believed that the rapid spread of fire in bowling alley losses of late has been due not only to the storage of these hazardous liquids, but to the nature of the finish of the alleys.

E & J RESUSCITATORS USED BY THE LEADERS

★

The outstanding Fire and Police Rescue Services, Industrials and Hospitals have selected these famous automatic breathing machines because they know from years of experience that they cannot afford to take chances with anything but the best when lives are at stake.



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To Design and Manufacture
Automatic Resuscitators

Behind each E & J Resuscitator is a long record of dependable and successful performance which is the result of many years of specialized experience by the pioneers in mechanical artificial respiration. This experience coupled with sound engineering practice and precision workmanship accounts for there being so many E & J Resuscitators saving lives every day throughout the world.

WRITE TO ANY OF OUR DISTRIBUTORS LISTED BELOW FOR FURTHER INFORMATION

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ALL-IN-ONE Protection
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M·S·A All-Service* GAS MASK
MODEL S CANISTER

The M.S.A. All-Service Mask with Model S canister meets respiratory protective requirements against poisonous industrial gases, toxic dusts, mists, smokes, etc.—singly or in combinations (including carbon monoxide)—is officially approved by the U. S. Bureau of Mines, and offers maximum comfort and convenience in service. Special features of the canister are its uniquely-designed large-area filtering element for smokes, dusts and fumes—of particular value under certain emergency conditions—and lower resistance to breathing.

Both the Model S All-Service Mask canister and the Standard All-Service canister are interchangeable in the harness. A strongly constructed fiber carrying case accommodates the mask equipped with either canister, together with a spare. To adapt All-Service cases now in use for the Model S canister, it is necessary only to remove a small fiber bracket. Write for complete details, in descriptive bulletin No. EA-8!

STANDARD MODEL ALL-SERVICE MASK

Providing protection for many years throughout industry against poisonous industrial gases, smoke and fumes encountered singly or in combination—including carbon monoxide—the M.S.A. All-Service Mask with Standard Model canister is still available.
Officially approved (Approval No. 1405) by the U. S. Bureau of Mines.
*Trademark Reg. U. S. Pat. Off.

MINE SAFETY APPLIANCES COMPANY
BRADDOCK, THOMAS AND MEADE STREETS · PITTSBURGH, PENNA.
District Representatives in Principal Cities

GOOD JUDGMENT PUT IT THERE

• Shown above is one of Cleveland's new triple combination pumpers. It is one of 13 new pumpers built by the Buffalo Fire Appliance Corporation. Each one is equipped with a FEDERAL Model "77" Doubletone Coaster Siren.

Good judgment directed the selection of these FEDERAL Sirens which have a powerful, penetrating tone and a long roll. The Model "77" is actually two sirens in one—a high pitched penetrating tone, and a low pitched carrying tone—an exclusive FEDERAL feature—which assures the greatest possible protection for valuable equipment.

The FEDERAL line includes sirens for all conditions, services, and types of apparatus.

Write for Bulletins, Today!

The FEDERAL Fury Exhaust Whistle is available as a warning signal in those communities which still prohibit the use of sirens under wartime conditions. Two new models of oscillating lights are also available for additional protection by a visual signal.

FEDERAL ELECTRIC CO., Inc.
SIREN HEADQUARTERS
8717 So. State Street Chicago 19, Illinois

Our Readers Say—

"I WAS very much interested in the letter published in the January issue of VOLUNTEER FIREMEN which you received from Secretary Edwin Harshman, Mingo Junction Volunteer Fire Co., stating what his company is doing for the war effort.

"We are a small volunteer company located in a town of 500 population. We have a membership of 380, and serve a rural area within a radius of 15 miles. To date we have 27 members serving with the armed forces. We have purchased $1,000 in defense bonds to date and expect to purchase more this coming year. We publish a monthly news letter which is mailed to all boys and girls from our vicinity serving with the armed forces.

"You may be interested in knowing what equipment we have for fighting fires. We have a Chevrolet pumper equipped with a Barton 450-gal. centrifugal front mounted pump. We carry 600 ft. 2½-in. hose, 300 ft. 1½-inch hose, and a reel of 200 ft. of booster hose, also salvage covers and two Indian fire pumps. In addition, we have a 1937 Diamond T tank truck, on which is mounted a 1,025-gal. tank. We also carry a 200-gal. Hale portable pump on this truck, 300 ft. 1½-in. hose and 100 ft. 2½-in. hose.

"Our main problem when rolling in to a fire is water supply. Since we have a tank truck, we hook the tank truck to our pumper and usually use 1½-in. lines. With 1,025 gallons of water to start with we can usually hold the fire damage to a minimum. This tank truck unit is also used for hauling water to farmers during dry spells, and by purchasing this unit we have built up a lot of good will in our community.

"We have a regular fire fighting team of 28 men, all of whom receive VOLUNTEER FIREMEN monthly. In addition to the regular firemen we have trained 35 auxiliary firemen under Civilian Defense. We have our territory divided into posts. Each post is captained by one of our regular firemen who is assisted by 5 auxiliary firemen. Each post is equipped with an Indian pump, 6 buckets, 1 axe, rope, and a first aid kit. Both the regular and auxiliary firemen meet monthly to discuss and practice the various methods of fire fighting.

"Yours for better fire protection.
"CARL F. KOCHER, *Captain*,
"Fogelsville Volunteer Fire Co.,
"Fogelsville, Pa."

•

"YOU will find attached an article on the history and activities of the Anoka Fire Dept., Inc. Would like to see more articles on this order in the VOLUNTEER FIREMEN, as it would be a great benefit to all volunteer departments to know what others are doing for their communities.

"We sure are not sorry we joined the National Fire Protection Association, we have gotten a lot out of the literature and enjoy reading VOLUNTEER FIREMEN.

"Anoka, Minnesota, with a population of 6,000 is located 20 miles northwest of Minneapolis at the junction of the Mississippi and Rum Rivers. The first fire department was organized on September 10, 1878, known as the Anoka Engine Co. No. 1 and was a volunteer department. The present department is still volunteer with a limit of 25 members, known as the Anoka Fire Department, Inc., has 23 members at this time, 2 are in the armed service, also 2 members have retired on a pension.

"Two drivers are the only full-time paid

men and they are on duty 24 hours and off 24 hours, so there is a man on duty at the fire station at all times. The fire station is centrally located in the city hall. Anoka uses a Gamewell telegraph alarm system, with 22 alarm boxes throughout the city. Every member has a gong in his home in series with the system

"At present the fire-fighting equipment consists of:

1 600-gal. pumper carrying 1,500 ft. 2½-in. hose, 200 ft. 1½-inch hose, 350-gal. booster tank with 100 ft. 1-in. hose, 2 smoke masks, 2 Indian pump cans, and other accessories.

1 500-gal. pumper carrying 1,200 ft. 2½-in. hose, 200 ft. of 1½-in. hose, 160-gal. booster tank with 100 ft. of 1-in. hose, and accessories.

1 Ladder truck with one 35-ft. extension ladder, 2 wall ladders 14 and 18 ft., 2 roof ladders 12 and 16 ft., 2 attic ladders 8 ft., 1 H & H inhalator, 3 smoke masks, and accessories.

"In September, 1934, a First Aid Rescue Squad was organized with 8 members taking training courses from local doctors and the American Red Cross. In March, 1942, the department raised funds and purchased a used ambulance for local emergencies, as there was none available in the city. No charge is made for local calls. A nominal fee is made for out-of-city calls. The ambulance is kept in the fire station, available at all hours. When the man on duty receives a call he immediately contacts 2 members of the squad for a driver and attendant. These men receive no compensation whatsoever. In 1943, 146 calls were made with the ambulance.

"From 1935 to the beginning of the present crisis, the department sponsored a Fife and Drum Corps that is well known throughout the Northwest. The Anoka Fire Department, Inc., is a member of the National Fire Protection Assn., Minnesota State Fire Dept. Assn., and the St. Croix Valley Fire Assn.

"FRANK H. SMITH, *Chief*,
"Anoka, Minnesota."

●

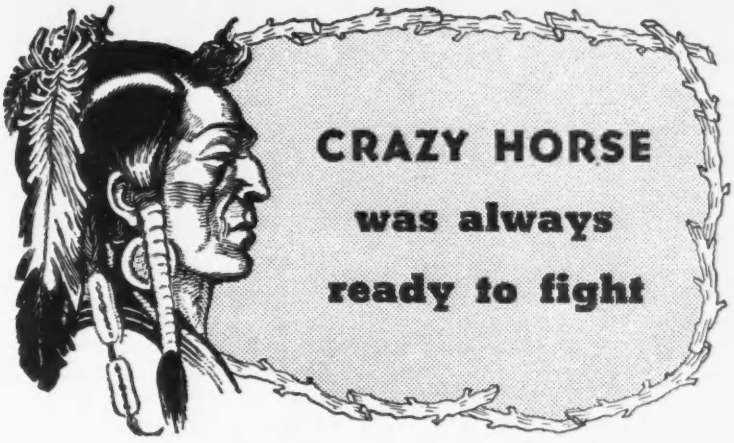
Nassau County, N. Y. Fire Commission Reports Busy Year

NASSAU COUNTY, N. Y., is located on Long Island, immediately adjacent to the Boroughs of Brooklyn, and Queens, New York City. The County is protected by 68 volunteer fire departments who elect delegates to the County Fire Commission, which, through its Bureau of Fire Prevention, is doing an outstanding job in the fire prevention field.

The 1943 annual report of County Fire Marshal George W. Clough and Assistant Fire Marshal Peter E. Lynch reports that it was possible to determine the causes of more than seventy per cent of the fires investigated during the year. The outstanding cause of the fires investigated was malicious fire setting, primarily by juveniles. There were arrests in 24 cases resulting from investigations and there was home discipline in 46 cases. There were no acquitals of cases taken to court.

Twenty-one lives were lost by fire in the County last year, including two suicides.

On January 1, 1943, the County Fire Prevention Ordinance became effective and very materially stimulated inspections and the detection of fire hazards. A course of instruction and written examinations resulted in the appointment of 109 volunteer firemen as assistant fire inspectors in 48 of the 66 fire district communities. In addition, 24 incorporated cities and villages have certified or created bureaus of fire prevention in their volunteer fire departments.



Hot tempered chief of the Sioux tribe, Crazy Horse, gave the white man plenty of trouble until he and his followers were decisively beaten by General Nelson A. Miles at the battle of Wolf Mountain, January 7th, 1877.

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Big Fire Near Dubuque, Iowa Fire Headquarters

AS has been pointed out many times, the fact that a fire station is nearby does not eliminate the need for adequate private protection such as automatic sprinklers and fire-alarm systems. The Fire Department of Dubuque, Iowa, reports that a fire near their headquarters destroyed a department store warehouse with a loss of approximately $70,000. The blaze was discovered at 2:34 A.M. on the morning of January 25th.

"Firemen were awakened by glass being blown out of the second floor windows. The building is situated diagonally across the street from Fire Headquarters. Smoke was belching out of the entire second floor and the entire second floor seemed to be involved in fire. The second and third alarms calling all off-duty men and equipment was sounded one minute after the alarm was turned in by the fireman on watch on the apparatus floor.

"The fire was attaked from all sides immediately, and from roofs of nearby buildings. Deluge sets, turret pipes and a water tower were put into use as quickly as equipment could be set up. The second floor almost completely caved in and the basement was entirely flooded.

"The building formerly was used as a garage, the wood floor being oil and grease soaked. The building was being put into first-class condition, with new floors having been laid and the first floor strengthened."

The report adds that the second floor was practically one large room. There were no fire doors, and no watchman in the building which was not sprinklered. Fire walls protected by eighteen hose streams confined the fire to the one building.

Improper Fire Wall Construction

THE importance of modern building code requirements is pointed out by Chief J. L. McLane, Fire Department, Charleston, W. Va., in a report on a fire in an old four-story business block constructed before the city's present building code was adopted. The fire was discovered at five-thirty o'clock on the afternoon of January 7th, in a photoprint shop on the second floor. The first fire companies went in the rear alley and up the stairway to the second floor with their lines to attack the fire. An explosion, or backdraft, blew the firemen down the stairway to the first floor and drove the fire over the entire second, third, and fourth floors.

Later the fire extended to the fourth floors of the adjoining buildings because the floor joists in these buildings were set end to end on the top floors and extended through the brick party walls. The present building code in Charleston requires that such joists must be staggered in the wall. These exposure fires were controlled by cutting through the roof and directing streams through the openings. Ten hose streams were used by six engine companies and a ladder company. The loss was $100,000.

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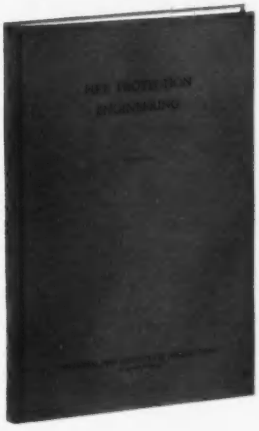

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No Provision For Pumper Section

FOR many years fire chiefs have been urging property owners in areas not under fire-hydrant protection to prepare approaches for pumper suction at nearby streams, cisterns and other possible sources of water supply. Fire Chief L. S. Ullett, of East Sparta, Ohio, reports a fire illustrating the importance of this recommendation.

Early on the morning of January 5th, neighbors discovered fire in the J. J. Buchman Sales Co. Garage and called the volunteer fire department. The fire was fought with water from a 300-gallon booster tank on the apparatus, supplemented by a bucket brigade from nearby wells until these ran dry. Then a 1,000-foot line was laid to a creek, but as no approaches had been made in advance for pumper suction one-half hour was lost in getting the pumper within drafting distance. The garage was destroyed with a loss of $49,000.

●

Spray Nozzles Shown Safe Near Electric Currents

ACCORDING to the News-Bulletin of the International Association of Electrical Inspectors, demonstrations were recently conducted by the Union Electric Company of St. Louis, Mo., to demonstrate to company employees that spray nozzles could be safely used in fighting fires in high voltage electrical equipment. Streams from various types of spray nozzles on both 1½-inch and 2½-inch hose were directed from a distance of 6 feet against a metal screen insulated against ground and carrying voltages of 70,200 or 144,400 volts, respectively, in the various tests. The maximum current measured as passing from the nozzle to the ground was 0.000275 amperes, which according to information from authoritative sources, would not be felt by the average person.

The tests were made with raw river water. Even the addition of salt to reduce the resistance of the water did not increase the current flowing from the screen to the nozzle.

D. S. Mersereau, Veteran Volunteer Fireman Passes

Firemen of New York State mourn the passing of Dudley S. Mersereau, of Union village, in Endicott. Mr. Mersereau was 80 years old when he passed away on January 10th. He joined the volunteer fire company of the town of Union 62 years ago and became a member of the village fire commission in the early 1900's. When the village was incorporated into the city of Endicott he became a member of the Endicott Board of Fire Commissioners. He was the last charter member of the Central New York Firemen's Association.

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MANUFACTURERS' ANNOUNCEMENTS

A NEW booklet, on "Recharging Instructions for Carbon Dioxide Extinguishers," has been published by the C-O-Two Fire Equipment Company, Newark 1, New Jersey, and made available to its field service agents and recharging stations. The booklet, which has been made up in pocket size, is illustrated with detail drawings of the equipment required for recharging and the procedure to be followed in recharging both system cylinders and portable extinguishers made by the C-O-Two Company. Copies of the booklet will be sent on request to those with facilities for recharging C-O-Two equipment.

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HOW the new alneumatic fire extinguishing system for the protection of aircraft in flight has been developed to adequately meet the needs of the larger and longer-range multimotored planes of today

and tomorrow is described and illustrated in detail in the new 1944 brochure titled, "The Fire Extinguisher Takes Wings."

It is published by American-LaFrance-Foamite Corporation of Elmira, N. Y. Readers interested in this new science of fire fighting in the air are invited to write for a free copy.

•

DUO-SAFETY Ladder Corporation has just published a new pamphlet describing its line of fire ladders. Entitled, "Over the Horizon" the pamphlet not only covers the wooden ladders available for the duration, but also expresses Duo-Safety's concept of post-war ladders of aluminum and plastic. A copy of this pamphlet will be sent to any reader asking for it. Address your request to Duo-Safety Ladder Corporation, 811 Ninth Street, Oshkosh, Wisconsin.

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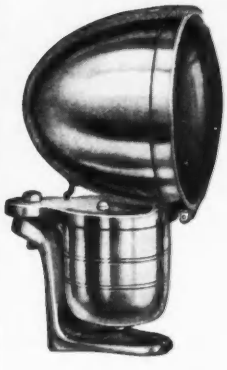

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